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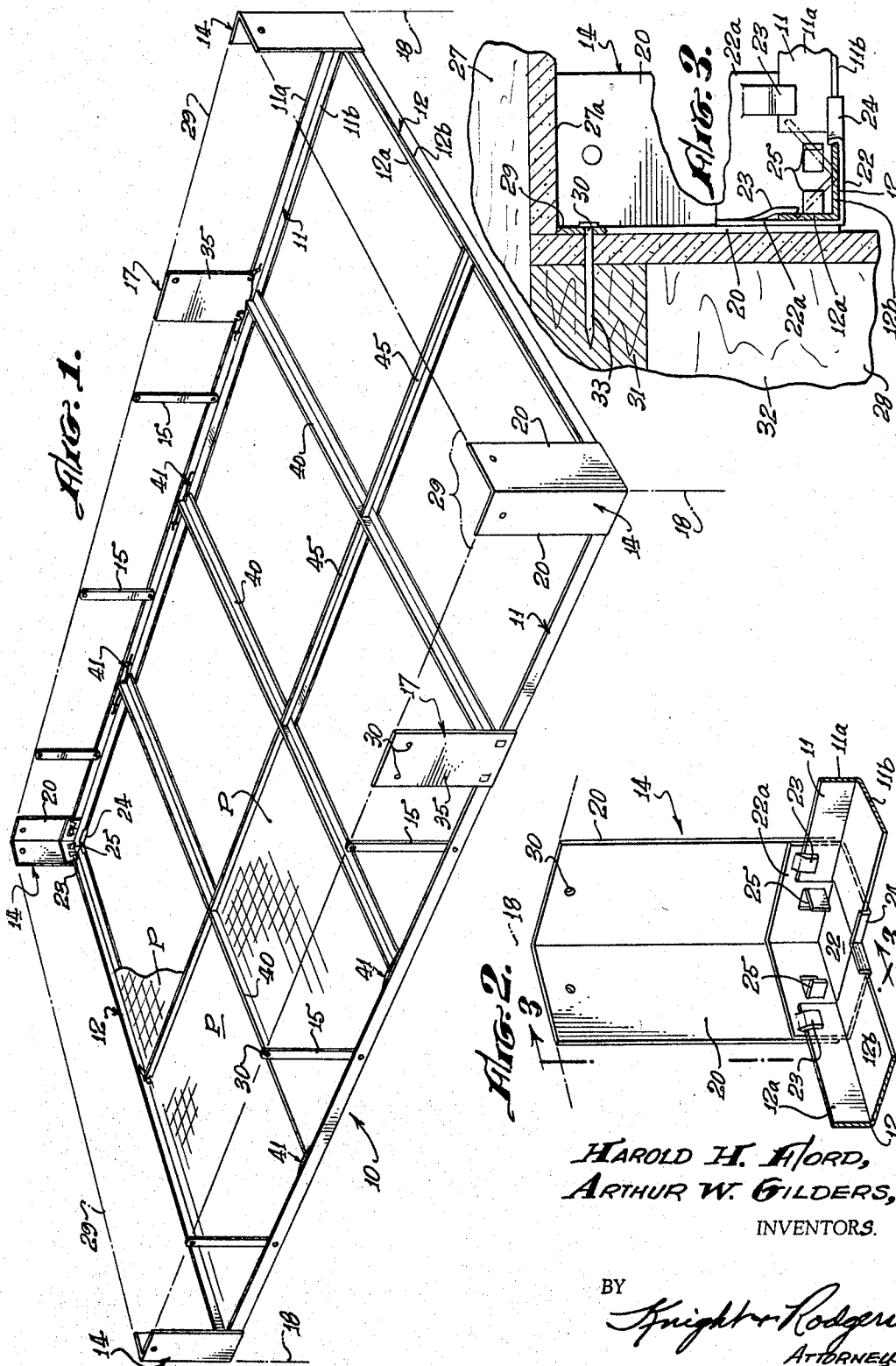
H. H. FORD ETAL

3,265,879

FRAME FOR DROP CEILING CONSTRUCTION

Filed April 26, 1963

3 Sheets-Sheet 1



HAROLD H. FORD,
ARTHUR W. GILDERS,
INVENTORS.

BY

Knight & Rodger
ATTORNEYS

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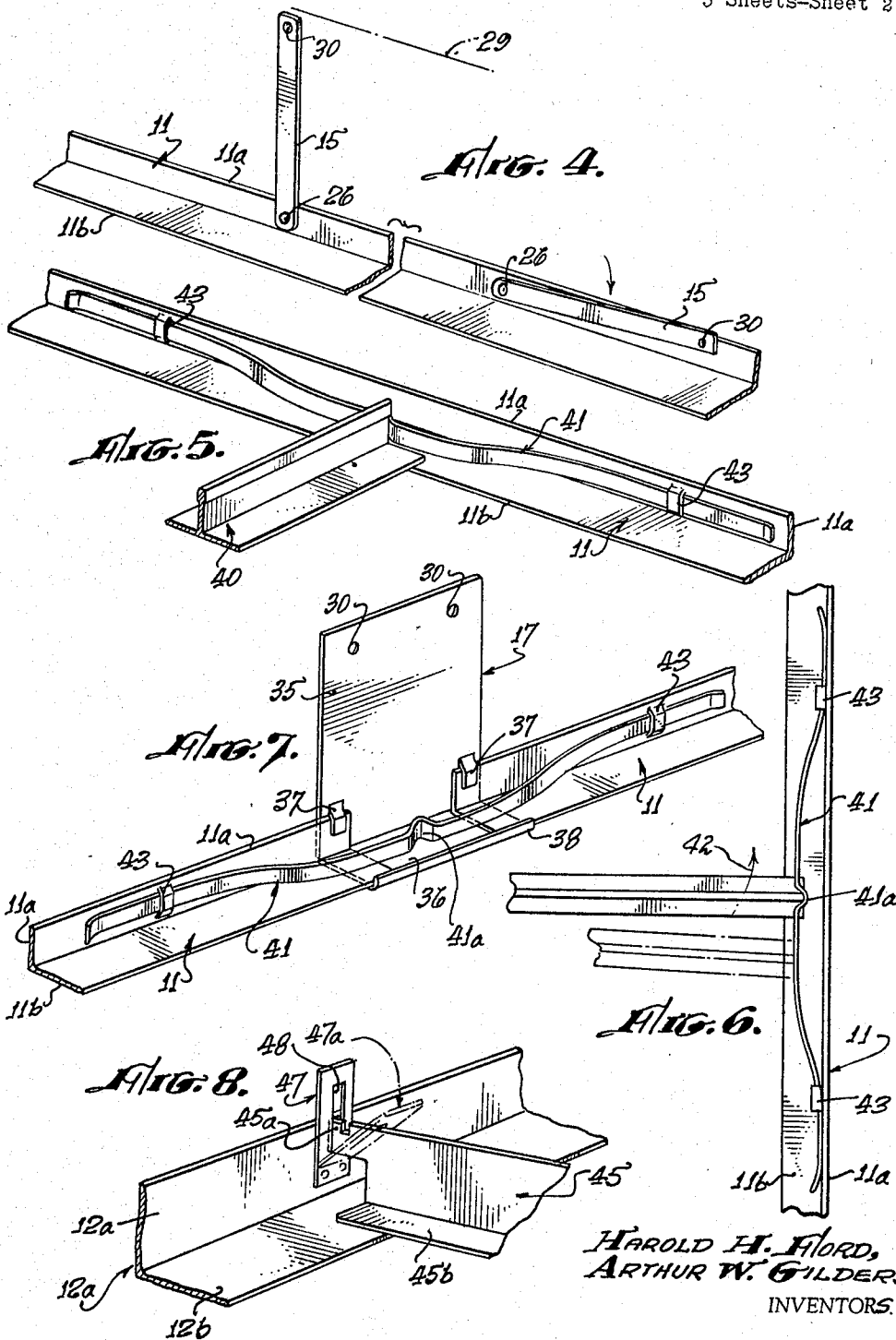
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BY

Knight & Rodgers

ATTORNEYS

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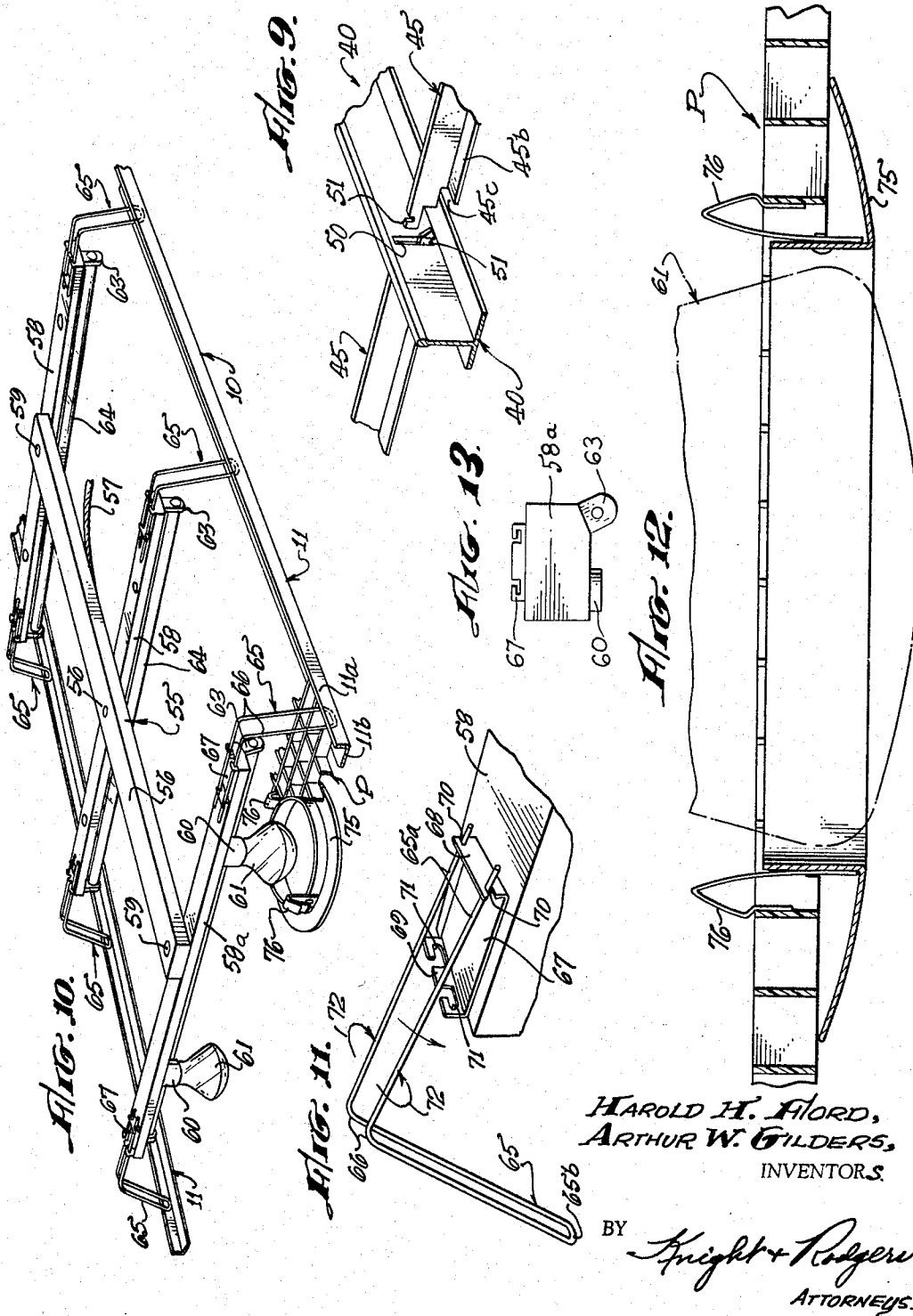
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ATTORNEYS.

1

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FRAME FOR DROP CEILING CONSTRUCTION
Harold H. Ford, Claremont, and Arthur W. Gilders,
Pomona, Calif., assignors, by mesne assignments,
to Emerson Electric Company, St. Louis, Mo., a
corporation of Missouri

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The present invention relates generally to building structures and more especially to drop ceiling structures of the lighted or luminous type.

Many modern homes and offices are now built with a lighted ceiling that is dropped below the structural ceiling located at the top of the structural side walls of the room. In homes, this type of construction is particularly favored in bathrooms, kitchens, and small work areas where, for architectural or illuminating reasons this construction is desired. Generally, such construction involves a frame supporting a plurality of light transmitting panels with suitable lights located above the panels. Solid, translucent panels are often preferred to diffuse the light, thus giving the appearance of more or less uniform illumination over the entire ceiling area of the room. In addition to these lighted panels, the drop ceiling structure may include openings at which spot lights, heat lamps, air vents, and other members are located.

Panels that are designed to transmit light are generally made of glass or plastic materials, but in its broadest aspect the ceiling is not limited to light transmitting panels since it may be desired to provide at least some panels of other types, for example, panels that provide acoustic treatment of the ceiling.

One of the problems peculiar to the housing industry is the fact that rooms have no standard dimensions since homes are generally custom built and consequently it is impractical to completely manufacture by mass production methods articles the size of which depends upon the dimensions of a room in a home. At the same time, structural features which are completely custom built require an excessive amount of hand labor on the job site with the result that costs become excessively high.

Thus, it becomes a general object of the present invention to provide a frame structure for a drop ceiling of this character which uses to the maximum extent standard parts which can be prefabricated by mass production methods, thus enabling the manufacturer to reduce the cost and to package as a unit all the necessary items for an installation.

It is a further object of the present invention to provide a design for a frame structure of this type which is adapted to a maximum of shop fabrication and a minimum of cutting and fitting on the job site, thus making for maximum ease in the assembly and installation of the frame.

A further object of the present invention is to provide a design for a frame of this character which is simple in construction and yet is adapted to fitting closely rooms having a wide range of dimensions, by using modular parts that can be prefabricated to a multiplicity of sizes which change according to regular intervals.

A further object is to provide a frame structure of the type described which permits flexibility in the location of lights, fans, and other equipment requiring openings in the panel structure, thus providing for a wide choice of positions of these items.

How the above objects and advantages of the present invention, as well as others not specifically mentioned herein, are attained will be better understood by reference to the following description and to the annexed drawings, in which:

FIG. 1 is a perspective view of a frame structure for

2

supporting panels to provide a drop ceiling, constructed according to the present invention.

FIG. 2 is an enlarged perspective of one of the corner brackets.

FIG. 3 is a combined section and elevation on line 3-3 of FIG. 2, showing the bracket installed.

FIG. 4 is a fragmentary perspective of one of the side rails showing in two different positions hangers pivotally mounted thereon.

FIG. 5 is a fragmentary perspective of one of the side rails showing the spring means for positioning a primary panel supporting member relative to the side rail.

FIG. 6 is a plan view of a side rail as shown in FIG. 5 illustrating engagement of the end of the panel support member with the spring.

FIG. 7 is a perspective view of a side rail at a combined supporting and splicing member supporting side rail sections.

FIG. 8 is a fragmentary perspective view of locking means for holding secondary panel supporting members in place.

FIG. 9 is a fragmentary perspective of another means for locking secondary panel supporting members in place.

FIG. 10 is a perspective view of an assembly of wireways for holding lights above the drop ceiling frame.

FIG. 11 is an enlarged perspective view of one of the spring legs on the boxes or wireways supporting lights above the panels.

FIG. 12 is an enlarged fragmentary vertical section through an egg-crate grill provided with an annular ring for a lamp in the drop ceiling structure.

FIG. 13 is an enlarged end view of one form of wireway supporting both lighting and heating lamps.

Referring now to the drawings, there is shown in perspective in FIG. 1 an entire frame 10 of rectangular outline, constructed according to the present invention. The frame illustrated comprises four side rails each defining one side of the frame and arranged in two pairs 11 and 12 with the members of each pair of side rails disposed at opposite sides of the frame. The ends of the side rails 11 and 12 are supported by corner brackets 14 arranged one at each of the four corners of the frame. At suitable intervals along the side rails between corner brackets 14, there are intermediate supporting members 15 for the rails in the form of hanger straps 15 and splice plates 17.

Corner brackets 14 are shown in greater detail in FIG. 2. These are designed to fit in the corner of a room at the intersection of two vertically extending side walls of the room, indicated by the broken lines 18 in FIG. 1. Each corner bracket comprises a back plate 20 composed of a pair of angularly disposed sections which lie in two vertical planes intersecting at a right angle. At the lower end of the back plate, is a horizontally extending base plate 22 which may be integral with the back plate or may be attached to it by upturned flanges 22a, as shown, or in any other suitable manner. Base plate 22, when the corner bracket is in place, is disposed in substantially a horizontal plane and thus projects horizontally outwardly from the lower end of each section of the back plate 20. These corner brackets are designed primarily for support of two intersecting side rails 11 and 12 at the ends thereof.

As will be seen by reference to FIGS. 2 and 3, each of side rails 12 is preferably a structural angle and has two angularly disposed legs 12a and 12b which normally lie in substantially vertical and horizontal planes respectively when the completed frame is installed. In this position it will be seen that legs 12a and 12b engage respectively back plate 20 and base plate 22 of the corner brackets.

Means for securing the side rails to the corner bracket comprises a tab 23, formed in any suitable way as by

lancing from the back plate or from a flange 22a, which is functionally a part of the back plate. The upper end of the tab is attached to the back plate while the lower end is free. The tab is bent forwardly away from the back plate sufficiently to receive leg 12a of the side rail behind it, as shown in FIGS. 2 and 3.

The side rail is introduced in place very simply by first placing it in the dotted line position of FIG. 3 and then rotating the side rail approximately 45° in a clockwise direction, viewed in FIG. 3, to force the upper end of the vertical leg 12a up underneath tab 23 while at the same time bringing the horizontal leg down into a horizontal position and into contact with base plate 22.

It is preferable to provide suitable securing means engaging the horizontal leg on the side rail to restrain the side rail against the reverse twisting motion which would disengage it from tab 23. While other suitable means may be employed for this purpose, it has been found convenient to turn up along the outer edge of base plate 22, a flange 24. This upstanding flange is inclined very slightly inwardly so that the horizontal leg of the side rail can be snapped into place behind it by the twisting motion previously described and the flange then engages the outer edge of the horizontal leg 12b to hold the leg down and restrain the flange against twisting motion in a direction to disengage it from the corner bracket.

Actually, each corner bracket carries two such tabs 23 and two flanges 24 in order to support the ends of the two intersecting side rails, rails 11 having legs 11a and 11b occupying positions corresponding to legs 12a and 12b respectively.

It may also be desirable to provide stop means in the form of tabs 25, or other suitable means, to limit movement of the side rails longitudinally thereof relative to the angle brackets. The side rails are preferably cut short enough so that they do not overlap at a given corner bracket and thus there is then a certain freedom of longitudinal movement that is prevented by stop means 25. Tabs 25 may be attached to back plate 20 or base plate 22 of the bracket, as desired.

The minimum normal support for the side rails consists of four corner brackets 14. However, when the length of the side rails becomes sufficiently great that the supported load causes them to sag appreciably, if unsupported, it is generally desirable to add to the side rails one or more intermediate supports in the form of hangers 15. These hangers may be rods, bars, or other suitably fashioned metal supports. Hangers 15 are pivotally connected at the lower end thereof to the upstanding leg of side rails 11 by a suitable fastening, typically a factory installed rivet 26, as shown in FIG. 4.

An advantage of this arrangement is that the hanger may be folded down, parallel with the length of the side rail, as shown at the right hand side of FIG. 4. For shipping, this arrangement saves space. Upon installation, it is a simple matter to raise the hanger into operating position by rotating it approximately 90° to the position shown at the left hand side of FIG. 4 where the hanger is ready for installation.

Although no hangers are shown attached to rails 12 in FIG. 1, it will be realized that these rails may be provided with similar hangers, if desired.

All of the frame supporting members 14, 15 and 17 extend upwardly from the frame for the same distance so that their ends terminate in a common plane. Advantage is taken of this fact during installation to insure that the frame is in a horizontal plane. The frame is raised in the room until brackets 14, hangers 15 and splice plates 17 all abut the structural ceiling 27, which presumably is plastered or otherwise finished, to the position shown in FIG. 3. Since the finished surface 27a of the ceiling 27 is level or horizontal, the frame is thereby located parallel to surface 27a and is spaced below it by the length of corner brackets 14, the spacing between the frame and the ceiling being uniform at all sides. Ceiling 27 inter-

sects the vertical side walls 28, forming interior corners 29 at the intersection of the surfaces, as indicated by dotted lines in FIG. 1. The vertical corner at the intersection of two walls 28 is indicated at 18.

All of the hanger members, such as brackets 14, straps 15 and plates 17 are provided with means, equally spaced from the upper ends thereof, for receiving a fastening means by which the support members are attached to a side wall 28 of the room. The exterior faces of corner brackets 14 are designed to lie against the vertical faces of side walls 28 of the room, thus placing the side rails closely adjacent the side walls of the room. In this position the brackets are fastened to the side walls as shown in FIG. 3.

Spaced uniformly from the upper ends of each of brackets 14 and hangers 15 and 17, are holes 30. These are spaced down by such a distance, for example three-quarters of one inch, in order that they will always be opposite plate 31 when the adjoining ends of the support members abut the ceiling 27.

It is common practice when framing the walls of residences using two-by-four vertical studs 32 to place a horizontally extending cap or plate 31 across the top ends of the studs. This plate runs continuously around the room. With the arrangement just described, a hole 30 is automatically positioned opposite the plate when the support member, whether a corner bracket 14 or another, abuts the ceiling; and a nail, bolt, or screw 33 can be inserted in the hole and driven into the plate at any position along the wall of a room without the necessity of finding one of the studs 32, which are located at horizontally spaced intervals along the wall, to nail into. This greatly simplifies the problem of installation and saves time which might be otherwise lost in trying to locate the studs.

In order to standardize on fabrication as much as possible, resort is had to modular constructions. For example, the side rails are factory cut to predetermined lengths, and the rails of a given frame are commonly made up of a plurality of sections if the dimension of a room is in excess of the length of a precut section. For example, by making sections in lengths of one, two and five feet, a great variety of sizes can commonly be built up using one or more of these sections; and if the room dimension is not an integral number of feet, a rail section can be cut easily to obtain an exact fit.

In order to join the rail sections together, a combined hanger and splice plate as shown at 17 is used. This resembles very much the construction of corner bracket 15, as will become evident. The splice plate, shown in FIG. 7, comprises a back plate 35 provided with a plurality of nail holes 30 spaced from its upper edge as explained and having at its lower end the horizontally extending base plate 36. Two tabs 37 are lanced from back plate 35 at positions to receive the upper flanges 11a of two sections of side rail 11 as shown in FIG. 7. These are inserted and fastened in place in the same manner as previously described. The forward edge of base plate 36 is provided with an upturned flange 38 which engages the horizontal leg 11b of the side rail to restrain it against twisting motion which would disengage the side rail from tab 37.

The combined support and splice plate is easily and conveniently made from a single piece of sheet metal, stamped and formed in the shape shown. It will be obvious that by providing a 90° V-cut in base plate 36 and then bending the back plate through 90° along a median line passing vertically through the apex of the cut, the splice plate would become an angle bracket 14.

For various reasons, both practical and aesthetic, it is desired that the frame be designed to support a plurality of individual panels P, each of which is smaller than the frame itself. Accordingly, the frame normally comprises one or more transverse panel supporting members 40 and/or 45 which normally subdivide the area

5

surrounded by the side rails into smaller rectangular spaces. The panel support members 40 and 45 are conveniently made from T-bars. The bars are inverted with the stems vertical and the heads or flanges down, thus providing upwardly facing shoulders upon which panels P rest.

The primary support members 40 extend across the frame, preferably across the shorter dimension, and are supported at both their ends upon the two side rails 11 at opposite sides of the frame. In cooperation with the side rails, they provide a support for one or more panels.

The ends of the main T-bars 40 are engaged by springs 41 which restrain the T-bars against lateral displacement. Springs 41 are leaf springs having a bow-shape and are each indented or recessed near their center, as may be seen at 41a in FIGS. 6 and 7, to receive the upstanding stem portion of a T-bar 40. The T-bar may be engaged with the spring by the simple act of resting the end of it on a side rail flange and moving the end of the T-bar horizontally, as shown in FIG. 6 by arrow 42, to bring it into the recess 41a. The springs can compress somewhat to allow for minor variations in the spacing between the ends of a T-bar 40 and the flange 11a of a side rail. This is an advantage with precut bars as the finish size of a room may depart somewhat from the expected dimension. Also, rooms are not always exactly "square," corresponding dimensions at different positions not always being equal. Hence, a substantial degree of built-in tolerance eliminates, or at least minimizes hand cutting on the job to achieve an exact fit.

Each spring 41 is preferably carried on a side rail in such a way that the entire spring may be shifted bodily lengthwise of the side rail. This may be accomplished conveniently by lancing in the upstanding leg 11a of the side rail a pair of spaced loops 43 of a size to take the ends of spring 41. The bow-spring has flat end portions of any length desired which can slide within a loop 43, thus allowing the entire bow spring to be shifted longitudinally of the side rail to any position within a predetermined range of movement. This is of considerable assistance in creating a tolerance in the exact position of the transverse members, allowing the openings in the frame to be adapted to the normal variations in size of panels of a nominal size.

A further subdivision of the frame to permit a reduction in the size of the individual panel supported thereby is accomplished by providing secondary transverse panel supporting members 45, also in the form of T-bars. Cross-T's 45 may be supported at one end by side rails 11 or 12 and at one or both ends by the primary transverse panel supporting members 40.

Various means may be employed to engage and hold the secondary supporting members in position against lateral displacement. Of course, the bow springs described may be used. One other such means is illustrated in FIG. 8 and is particularly applicable to the joint between a side rail and a member 45 where the latter is supported by a side rail. The side rail 12 is provided with a metal clip 47, attached by any suitable means, as for example by spot welding. This metal clip 47 has an upstanding bendable leaf 47a provided with a narrow, vertically elongated slot 48. The end of T-bar 45 is normally, though not necessarily, notched so that the upstanding stem of the bar projects at 45a endwise therefrom beyond the flange 45b. First the projecting end 45a of the T-bar is inserted in slot 48, after which the upstanding leaf of clip 47 is bent from the solid line position to the dotted line position 45b. In this position the metal clip restrains the bar 45 from lateral displacement, and at the same time limited endwise movement of the bar is possible to accommodate minor variations in dimensions but without being great enough for the stem of the T-bar to be withdrawn from slot 48.

FIG. 9 illustrates means for locking the secondary panel supporting members 45 to the main T-bars 40 to hold the

6

secondary members 45 against lateral displacement. The end of the cross T-bar 45 is notched as shown in FIG. 9 by cutting away the flange 45b at 45c at the end of the bar to allow the stem to project endwise beyond the flange.

The undersurfaces of the two T-bars are now flush. The depth of the notch is such that when the end of flange 45b abuts the corresponding flange on T-bar 40, the stem of bar 45 projects through slot 50 in the stem of T-bar 40. The projecting end of the stem is notched as shown at 51 to form a small terminal tab which can be twisted crosswise of slot 50 to prevent withdrawal of the T-bar through the slot. By making each projecting end of a stem substantially half of the vertical height of slot 50, the ends of two cross-T-bars 45 can be inserted in one slot 50 from opposite sides and locked in place.

Lamps for illuminating the room or providing heating are located in the space between the frame and the ceiling and may be supported in any suitable manner. It is generally convenient and suitable to support the lamps from the ceiling. However, there are times when it may be desired to support lights upon the frame itself. This is of advantage for remodeling jobs when the drop ceiling frame is installed in an existing structure or when for any reason it is inconvenient or not desired to use ceiling-mounted fixtures.

An arrangement for supporting lamps on the frame is illustrated in FIGS. 10, 11, and 12. Here the lamp support structure indicated generally at 55 comprises a central hollow, box-like housing 56 which extends longitudinally of structure 55 and serves as a wireway, electrical conductors 57 entering this wireway through a suitable opening in one wall.

The light supporting structure 55 also comprises a plurality of transverse housings 58 which are also hollow, box-like housings and themselves serve as wireways in addition to their supporting function. Each of these transverse housing elements 58 is preferably pivotally connected to the longitudinal housing 56 by a suitable bolt 59, or similar element. This permits the transverse members to be rotated into positions in which they are more or less parallel to the longitudinal housing 56, thereby reducing the width of the complete assembly for shipping purposes.

Each of the transverse housings 58 is provided with suitable lamp receiving and supporting elements. These may be conventional threaded sockets 60 designed to receive a lamp 61 having a screw-threaded base. Lamp 61 may be either a reflector type light for illuminating a limited area or it may be a heat lamp. Lamp 61 is mounted above and in registration with an opening in panel P. Alternatively, for general illumination, the lamp receiving elements 63 may be employed which are adapted to receive tubular type fluorescent lamps 64 for a general illumination above the panels supported by the frame 10.

The housing at the right hand end of the assembly in FIG. 10 designated 58a is designed to support lamps for bath heating and lighting. As may be seen in FIG. 10 and especially in FIG. 13, the lamp receiving fixtures 63 for holding fluorescent tubes 64 are at one side of the sockets 60 for the heat lamps 61. It is advantageous to have angularly disposed surfaces on the underside of transverse wireway 58a on which the two different types of lamp receiving elements may be mounted, as shown. This arrangement is advantageous in obtaining better spacing of the lamps for a given size of wireway.

The assembly of housings 56 and 58 and the lamps mounted thereon are supported from side rails 10 by a plurality of wire extension legs 65 mounted one on each end of each transverse housing 58. One of these legs is shown in detail in FIG. 11, together with the bracket 67 for mounting it on housing 58.

Each leg 65 is a single piece of wire bent into a narrow elongated U-shape. The arms of the U are then bent at 66 through an angle approximately equal to a right angle or less.

The free ends 65a of the arms are attached to a housing 58 by means of a sheet metal bracket 67 mounted on top of the housing. Brackets 67 provides two spaced up-standing walls 68 and 69. Rear wall 68 has a pair of spaced openings, typically and preferably in the form of outwardly facing, oppositely disposed slots 70 into which the free ends 65a of the two wires of a leg 65 are inserted, as shown. The arms are held spaced apart by the intervening portion of wall 68.

Bracket wall 69 has a pair of L-shaped slots which provide two opposed, mutually facing slots 71 to receive the two arms of a leg 65. The entrance ends of the slots are closer than the distance between the two slots 70, requiring that the two arms of the wire leg 65 be squeezed together, as indicated by arrow 72, in order to enter into slots 71. After they are released, the wires spring apart and seat in the outer ends of slots 71. The legs 65 can be slidably adjusted now with respect to housing 58 by sliding the arms 65a in slots 70 and 71, thus adjusting the overall width of the light supporting structure to space the bight ends 65b of legs 65 to rest on side rails 11, as shown.

When heat lamps are mounted in sockets 60, it is generally advisable to provide means for circulating air through the space above panels P in order to remove accumulated heat above the panels. To facilitate this circulation, it is advantageous to use a panel P of the egg-crate type. This is an open grill in a rectangular pattern. This panel is not only light transmitting, since light can come down from above through the openings in the panel, but at the same time the panel is pervious to the passage of air, air circulation being effected by any suitable type of fan or ventilating means in the ceiling, not shown in the drawing.

Whether the lamp 61 is of the spot light or reflector type or is a heat lamp, it is preferable to surround the lamp at the level of the opening in the egg-crate panel P with a ring 75 as shown in FIG. 12 which gives an attractive finished appearance to the opening in the panel and also shields the panel from heat radiated by the lamp. Ring 75 is normally a metal ring since this type of ring absorbs and dissipates heat effectively. The ring is mounted upon elements of the egg-crate panel by means of a plurality of spring arms 76.

From the foregoing description, it will be evident that various changes in the detailed design and arrangement of the parts of the present invention may be made by persons skilled in the art without departing from the spirit and scope of our invention. Accordingly, it is to be understood that the above description is considered to be illustrative of, rather than limitative upon, the invention as defined by the appended claims.

We claim:

1. A frame structure for supporting panels in spaced relation to the ceiling of a room having a ceiling extending between a plurality of vertically extending side walls, said side walls having vertically extending studs topped by a horizontally extending plate, comprising:
 - a plurality of corner brackets of equal length each adapted to abut the ceiling and each adapted for attachment to a wall of the room, each corner bracket having a hole spaced from its upper end to be opposite the plate at the top of the studs when the bracket abuts the ceiling;
 - side rails supported by the corner brackets, each rail being closely adjacent a side wall;
 - an intermediate panel supporting member extending between and supported by the side rails at opposite sides of the frame, said rails and intermediate supporting member being detachably connected together and cooperating to support panels substantially in a common plane parallel to said ceiling.
 - and hangers pivotally connected to the side rails and each provided with a hole located opposite the plate at the top of the studs in the side wall when the hangers abut the ceiling at their upper ends.

2. A frame structure for supporting panels in spaced relation to the ceiling of a room having a ceiling extending between a plurality of vertical side walls, comprising:

a rail support member having a back plate adapted for attachment to a room wall and a base plate secured to and projecting outwardly from the back plate;

a side rail having two angularly disposed legs adapted to engage the back plate and the base plate respectively;

and means for securing the side rail to the support member including a tab attached to the back plate with a free end of the tab at the lower edge thereof, one leg of the side rail being received between the tab and the base plate by a twisting motion of the side rail, said securing means also including means engaging the other leg of the side rail to restrain the side rail against reverse twisting motion disengaging it from the support member.

3. A frame structure for supporting panels in spaced relation to the ceiling of a room having a ceiling extending between a plurality of vertical side walls, comprising:

a rail support member having a back plate adapted for attachment to a room wall and a base plate secured to and projecting outwardly from the back plate;

a side rail having two angularly disposed legs adapted to engage the back plate and the base plate respectively;

and means for securing the side rail to the support member including a tab attached to the back plate with a free end of the tab at the lower edge thereof, one leg of the side rail being received between the tab and the base plate by a twisting motion of the side rail, said securing means also including an upturned flange on the base plate engaging the outer edge of the other leg of the side rail to restrain the side rail against twisting motion disengaging it from the support member.

4. A frame structure for supporting panels in spaced relation to the ceiling of a room having a ceiling extending between a plurality of vertically extending side walls, comprising:

a plurality of corner brackets each adapted for attachment to one of said side walls;

side rails supported by and between the corner brackets at positions closely adjacent side walls of the room;

a transverse panel supporting member extending between and supported by side rails at opposite sides of the frame and cooperating with the side rails to support a plurality of panels substantially in a common plane;

and resilient means carried by a side rail engaging one end of a transverse panel supporting member to restrain the panel supporting member against lateral displacement, said resilient means being a bow-shaped spring having a recess to receive the end of the panel supporting member.

5. A frame structure as in claim 4 that also includes means securing the bow-shaped spring to the side rail for limited relative sliding movement thereof longitudinally of the side rail.

6. In combination with a room having upwardly extending side walls and a ceiling at the top of the side walls and a plate extending around the room at the top of the side walls and extending below the ceiling,

a frame structure attached to the side walls for supporting panels in spaced relation to the ceiling and including side rails; and

a plurality of corner brackets attached to the frame structure and each abutting the ceiling and having a fastener receiving hole spaced from the upper end of the bracket and positioned opposite the plate,

each bracket supporting and positioning a pair of side rails a predetermined distance below the ceiling.

9

7. An illuminated drop ceiling structure for a room having a plurality of side walls comprising:
 a plurality of corner brackets each adapted for attachment to the side wall of a room;
 side rails supported by the corner brackets including a pair of side rails at opposite sides of the room;
 light transmitting panel means supported at least in part by said side rails;
 and means supporting a lamp above the panel means, said lamp support means including:
 a hollow wireway extending transversely of said pair of side rails;
 lamp receiving means on the wireway;
 and a support leg at each end of the wireway slidably mounted on the wireway and engageable with one of the pair of side rails to support the wireway upon the side rails.
8. An illuminated drop ceiling structure as in claim 7 in which each leg comprises a pair of spaced, relatively moveable arms having straight terminal sections, and which also includes a leg mounting bracket on each end of the wireway, said bracket comprising a pair of spaced walls, each wall having a pair of horizontally elongated slots to receive said terminal section, the slots of one pair having entry means at the end opposite to the location of the entry means of the other pair of slots.
9. An illuminated drop ceiling structure as in claim 7 in which each leg comprises a pair of spaced, relatively moveable arms having straight terminal sections, and which also includes leg mounting means on each end of the wireway, said mounting means comprising a pair of spaced, upstanding walls each having a pair of openings slidably receiving the arms of a support leg, the openings in one wall providing two arm engaging edges that face outwardly away from each other and the openings in the other wall providing two arm engaging edges that face inwardly toward each other.

10

10. An illuminated drop ceiling structure for a room having a plurality of side walls comprising:
 a plurality of corner brackets each adapted for attachment to the side wall of a room;
 side rails supported by the corner brackets including a pair of side rails at opposite sides of the room;
 light transmitting panel means supported at least in part by said side rails;
 and means supporting a lamp above the panel means, said lamp support means including:
 a longitudinal hollow wireway extending parallel to said side rails;
 a plurality of transverse hollow wireways mounted on the longitudinal wireway with the interior space thereof in communication with the interior spaces of the transverse wireways;
 lamp receiving means on a transverse wireway;
 and a support leg at each end of each transverse wireway slidably mounted on the wireway and engageable with one of the pair of side rails to support the wireway upon the side rails.
11. An illuminated drop ceiling structure as in claim 10 in which the transverse wireways are pivotally mounted on the longitudinal wireway.
12. An illuminated drop ceiling structure as in claim 10 in which the panel means has a lamp opening therein and the lamp support means is movable with respect to the panel to bring a lamp in said lamp receiving means into registry with the lamp opening in the panel.

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NORTON ANSHER, *Primary Examiner*.J. F. PETERS, *Assistant Examiner*.